

WHAT IS CLAIMED IS:

1. A fuser system of a xerographic device, comprising:

a fuser member and a pressure member in which the pressure member is made to exert pressure upon the fuser member so as to form a nip having a nip width between the fuser member and the pressure member, wherein the nip width is set to within a specification nip width range,

a drive system for driving at least one fusing member;

a sensor for monitoring the torque of said drive system;

a processor in communication with the sensor that receives torque data from the sensor, wherein the processor determines a current nip pressure uniformity from the torque data and compares the current nip pressure uniformity to the specification nip pressure uniformity range, and

a nip pressure adjustment device in communication with the processor, which adjusts the current nip pressure uniformity to be within the specification nip pressure uniformity range.

2. The fuser system according to claim 1, wherein the nip pressure adjustment device is in a mounting structure that supports the pressure member and said fuser member in engagement with each other.

3. The fuser system according to claim 2, wherein the mounting structure comprises a first cam system, associated with an inboard support member, for adjusting nip pressure on said inboard support member and a second cam system associated with outboard support member, for adjusting nip pressure on said outboard support member.

4. The fuser system according to claim 3, wherein the nip pressure adjustment device further includes a controller, in communication with said processor for independently controlling said first cam system and said second cam system.
5. The fuser system according to claim 1, wherein the fuser member is a fuser roll.
6. The fuser system according to claim 1, wherein the fuser member includes one or more layers of a silicone material.
7. The fuser system according to claim 1, wherein the pressure member is a pressure roll.
8. The fuser system according to claim 1, wherein the sensor monitors the changes in current supplied to the drive system.
9. The fuser system according to claim 1, further comprising a system for closed loop control of a nip width associated with said fuser member and said pressure member.

10. A method for closed loop control of a nip width associated with a set of a fuser member and a pressure member in which the pressure member is made to exert pressure upon the fuser member so as to form a nip having a nip width between the fuser member and the pressure member, wherein the nip width is set to within a specification nip width range, comprising:

monitoring velocity of at least one of the fuser member, the pressure member and a media passing through the nip,

providing the velocity to a processor, wherein the processor determines a current nip width from the velocity and compares the current nip width to the specification nip width range, and when the current nip width is outside the specification nip width range,

adjusting the current nip width so as to be within the specification nip width range,

monitoring torque applied to at least one of the fuser member, the pressure member,

providing the torque to the processor, wherein the processor determines a current nip width uniformity from the torque and compares the current nip width uniformity to the specification nip width uniformity range, and when the current nip width uniformity is outside the specification nip width range,

adjusting the current nip width uniformity so as to be within the specification nip width uniformity range.

11. The method according to claim 10, further comprising repeating said adjusting until both said current nip width uniformity is within the specification nip width uniformity range and said current nip width is within the specification nip width range.

12. The method according to claim 10, wherein the adjusting comprises increasing the pressure exerted by the pressure member upon the fuser member.

13. The method according to claim 12, wherein the adjusting comprises adjusting load on each end the pressure member upon the fuser member independently.

14. A fixing station for a printing machine comprising:  
a fuser member and a pressure member in which the pressure member is made to exert pressure upon the fuser member so as to form a nip having a nip width between the fuser member and the pressure member, wherein the nip width is set to within a specification nip width range,  
a drive system for driving at least one fusing member;  
a sensor for monitoring the torque of said drive system;  
a processor in communication with the sensor that receives torque data from the sensor, wherein the processor determines a current nip pressure uniformity from the torque data and compares the current nip pressure uniformity to the specification nip pressure uniformity range, and  
a nip pressure adjustment device in communication with the processor, which adjusts the current nip pressure uniformity to be within the specification nip pressure uniformity range.

15. The fuser system according to claim 14, wherein the nip pressure adjustment device is in a mounting structure that supports the pressure member and said fuser member in engagement with each other.

16. The fuser system according to claim 15, wherein the mounting structure comprises a first cam system, associated with an inboard support member, for adjusting nip pressure on said inboard support member and a second cam system associated with outboard support member, for adjusting nip pressure on said outboard support member.

17. The fuser system according to claim 16, wherein the nip pressure adjustment device further includes a controller, in communication with said processor for independently controlling said first cam system and said second cam system.

18. The fuser system according to claim 14, wherein the fuser member is a fuser roll.

19. The fuser system according to claim 14, wherein the fuser member includes one or more layers of a silicone material.

20. The fuser system according to claim 14, wherein the pressure member is a pressure roll.

21. The fuser system according to claim 14, wherein the sensor monitors the changes in current supplied to the drive system.

22. The fuser system according to claim 14, further comprising a system for closed loop control of a nip width associated with said fuser member and said pressure member.